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John Augur Holabird — An Appreciation

By John Wellborn Root, I.S.A. - F.A.I.A.

John Holabird's death in May took from all of us a man whose imagination, personality and achievements had a deep influence on American architects and American architecture. John Holabird was born with a creative intelligence and inherited a military background. His father was a leader of men and his mother was a great woman. The result was an unusually brilliant and gifted man. He combined imagination, creative ability, a brilliant mind with unshakable integrity, an inflexible code and a sure judgment.

Two Civil War Brigadier Generals, both graduates of West Point, were his grandfathers. His father too went to the Academy and was the No. 1 man in his class when during his last year he resigned to get married. The senior Holabirds had five children. Mr. Holabird was a great disciplinarian and teacher. He brought the boys up to do everything well. Manny (William Holabird, Jr.), a little older than John, was seventeen was Western Golf Champion and John was known to cast the best fly at the Coleman Lake Club.

I saw a little of William Holabird's discipline. He taught us poker and the amenities of poker. This led, by the way, to numberless Saturday poker games in later years with John Holabird in charge and the rest of us willing contestants. William Holabird believed that the right way was the only way to do anything and he so brought up his children. Manny was to go to West Point but he died suddenly so John was sent. He graduated in 1907, third in his class, and I think senior Captain. He was commissioned a 2nd Lieutenant, Corps of Engineers. After two years in the Army he resigned in 1909. I believe his father wanted his help and I suspect that though his military training was bound to have a great influence on John Holabird's outlook he was none too sanguine about military life. I am sure that he felt a driving urge toward creative work, toward architecture and all that implies.

In February 1910 Holabird showed up in Paris planning to take the Beaux-Arts entrance examinations. I was already in the school when I met him there. Our families, of course, had been friends. John, with his customary brilliance, passed the next examinations. When one remembers that he had had no architectural training, this is something of a record. We did construction together and I then realized the exceptional qualities of his mind. Fred Godley, now at Yale, and myself worked with him on some of the construction exams. We were hard put to it to keep up with him. He rushed through the school with his share of medals in the shortest time on record and when I finished I found John at work with Holabird & Roche when I applied there for a job.

As it happened John Holabird was making sketches for the Three Arts Club on North Dearborn Street and was deeply entangled in the Romanesque style and with figures from the famous fountain of Jean Goujon. I remember too that the Deshler Hotel, Columbus, was on the boards. Everything in hotel design was Robert Adam at the time but John was not satisfied to turn to the Adam books. Robert Adam, he said, had been inspired by the Italian Renaissance, which in turn followed ancient Rome, as Rome had followed the Greeks, so back to Greece we went for better or for worse. The Deshler Hotel resulted although I am not too sure how proud he would be of it today.

This interval of civilian life was short. In 1917 we were

all called into service. John was a Captain of Cavalry in the National Guard. The cavalry became artillery and Holabird a Major. His division reached France after training but John was relieved and sent to take command of the 12th Field Artillery of the 2nd Division, a veteran outfit with eight months of fighting to its credit. This was a large order as the division was about to share in the St. Mihiel offensive. Colonel Holabird was definitely worried but took the regiment through the rest of the war with honor and then into Germany. He didn't like it and lost some 22 pounds. His former Sergeant Major at John's funeral, almost unable to talk, told me that he was one of the best loved and respected men in the brigade. He was discharged in 1919 decorated with the Distinguished Service Medal and the Croix de Guerre.

This was the end of his military career. He came back to the leadership of Holabird & Roche. William Holabird was getting old and died in 1923. Martin Roche, his beloved partner and our inspiring mentor, wanted to spend more time fishing. He too was aging. So most of the responsibility was passed on to John Holabird. He and I were made partners in 1919. During the twenties Holabird directed the work of the firm and there was a great deal of it. His organizing ability and his skill in handling men made it possible for the firm to undertake successfully a great number and variety of jobs.

Following the death of the two older partners the name of the firm was changed. John Holabird with his modesty and unselfishness always saw to it that I was moved forward with him. He never took advantage of his privileged position. His loyalty, too, brought our friend of Beaux-Art days, Gilbert Hall, with all his ability to us in Chicago where he has been making his great contribution ever since.

Holabird & Roche early recognized that the larger work demanded a complete organization, engineers as well as architects. An architectural firm should be responsible for all the branches of construction design. John Holabird accepted this as an essential and strove from the first to build an organization able to cope with all phases of the complex problem of the modern commercial building. He remembered that the pioneering in skeleton construction had been done as much by the engineer as by the architect. At any rate Holabird developed an organization of which he was justly proud. He was always careful about estimates and about seeing that we stayed within them. He was exacting, often seemingly stern, but always kind. He insisted that the work we turned out was always a joint project, the result of discussions and arguments by everyone concerned, and was never the creation of one man. This he was convinced was the way to run a large office.

John Holabird was and looked on himself as an architectural designer. He was a great one. He never forgot that the organization was there primarily to see that the conception that had been created was properly executed. He did not like standardization. Too, he fought against the idea that we were "specialists" in say hotels of which we had designed a number. As every architect knows, every new job is a new design problem. Costly changes frequently happened in the drafting room because someone had a better idea. The drafting room complained and costs suffered but John Holabird insisted that we reserve the right to make changes regardless

of the cost and the nuisance if something better were found. Architecture is a creative profession and as such must not be regimented.

He loved to study and develop the plan of a new project. He felt that the greatest contribution the Beaux-Arts had made in his training was in the study of planning. I think that in his skill in organizing the "plan" he showed his greatest architectural ability. He was uniquely adept in composition and in arrangement. Holabird & Root's most successful buildings were often simply interpretations of his sketches—the Daily News, Ramsey County Court House and St. Paul City Hall, Michigan Square, A. O. Smith Building, etc., to mention some at random. When it came to the expression of the plan in exteriors and interiors, he liked simplicity, dignity and restraint. He was very particular about the detailing and very sensitive to a good detail. His sureness of taste was marked.

Holabird never liked the radical design that strove at all costs for attention. He hated, as we all do, the "modernistic" and the bizarre. Though he thought progressively and looked for new ideas, his tradition and his father's training made him feel that he had a grave responsibility in spending his clients' money and refused to experiment too much at their expense. He wanted to move forward with sureness, avoiding transitory fads and half-baked solutions. John Holabird was as glad as the rest of us when we left behind the "period influences" of the early twenties and began to think more freely. He was in entire sympathy with the modern point of view but felt that many of its accepted forms had become expressions of the style and were used without meaning as often as had been the column or the cornice in the past. His frequent comment on many modern attempts was, "Why that's nothing but Vieux Corbusier." When the new forms were applicable and served a real purpose, Holabird was eager to take advantage of them. In the competition for the Addition to the Art Institute he decided to break away completely from the present building and develop a three-story scheme with horizontal strip windows 8 ft. above the floor line to permit a maximum flexibility in the arrangement of partitions. The other competitors generally tied the Addition to the present structure. I remember a remark Saarinen made to us after serving as a juror. We asked him if the fact that the addition was so different from the old building had weighed against us. He said, "On the contrary, don't we all agree that the Piazza San Marco with its divergent styles is still a thing of beauty."

On the other hand, Holabird when it came to the design of the modern office building questioned the continuous window. He pointed out that Holabird & Roche and others had tried the all glass building in the 90's and the early 1900's—viz: The Reliance Building and the Republic Building. It had not proved satisfactory according to those who owned and operated the buildings so we went to individual windows. The Federal Loan Agency in Washington is the last expression of John Holabird's conception of office building design. Holabird considered the Barcelona Pavilion by Mies van der Rohe probably the greatest contribution to modern design. He also was enthusiastic about the Swedish Pavilion at the World's Fair. In fact Swedish architecture came very close to representing his way of thought. He felt that here was gradual and tried architectural progress. He liked its thorough study, its quietness, its taste. During a trip to Sweden the great architect Bergsten showed us the designs of the Kungsholm. I remember how impressed John was with the fact that from the start during the sketch stage Bergsten, as Chief Architect, had gathered around him as he called them, "Architects" of furniture, of tapestry, carpets, together with painters and sculptors. They were all at work on designs—parts of a creative team under Bergsten's leadership.

John Holabird had much influence on the Chicago World's Fair in 1933. Rufus Dawes one day came to him to ask his recommendation on how the architects of the Fair should be selected. John expressed a broad and liberal attitude. He told Mr. Dawes that the architects in charge should not be confined to Chicago architects, that the Fair was a national matter and the best talent in the country was not too good. John suggested that Raymond Hood recommend the members of the architects' committee. Mr. Dawes followed this suggestion. John Holabird was one of the seven so selected. After the general plan had been decided on, the jobs were numbered and the committee voted to assign the first seven jobs to the seven architects on the committee. John Holabird was voted the first and central building. Since it had to be erected on piles and consequently was bound to be more expensive, this building was postponed and ironically enough eventually was never built due to the limitations of the budget. As a result the only building that John Holabird had an opportunity to design was the Chrysler Building which we won in a national competition.

John Holabird was exceedingly critical about everything we ever did. I think he would agree with my father in saying that it was difficult to walk downtown because he had to avoid passing so many of his designs. Much credit goes to Holabird for the plan of Soldier Field. The program dictated that it form a composition with the Field Museum. All other competitors closed the end toward the Museum. John Holabird's solution opened the plan, closing the composition with the Museum.

He was proud of the plan of the Illinois Stadium. He liked Diana Court, "333," the Forest Products Laboratory at Madison, the A. O. Smith Building at Milwaukee, and the exterior of the Chicago Daily News. He obtained real satisfaction from the Art Institute Competition and thought the Chrysler Building creditable. When the Trumbull Park House, for which he was Chief Architect, was recognized as one of the better designs of its decade, he was very pleased. The Federal Loan Agency in Washington, the Ramsey County Court House and St. Paul City Hall, Springfield Office Building for the Illinois Bell Telephone Company, Northwestern Technological Institute, the Morton Arboretum and the Washington Statler were all structures that he felt worth while.

The community recognized John's ability. He had a way of assuming responsibility and fulfilling his obligations that is very rare. He was a trustee of many organizations—the Art Institute, Newberry Library, John Crerar Library, Morton Arboretum. He was always active in the Chicago Association of Commerce. Nationally he received awards of various kinds, including the Gold Medal of the Architectural League of New York. In 1940 Holabird was made a member of the Commission of Fine Arts in Washington by President Roosevelt. John had been on the Smithsonian Competition jury. Saarinen's progressive solution had won first prize. Holabird was enthusiastic about the plan and the exterior. He was convinced that it should be built as drawn. Since the design stepped out of the Washington Classic pattern, he suspected that he was put on the Commission to do what he could to help insure its erection. John Holabird was largely influential in bringing Carl Milles, whom he had met in Sweden, to this country. Subsequently he recommended Mies van der Rohe to Illinois Tech and helped to bring him here.

He was always generous and cooperative with the members of our profession. Judging from the letters I received after his death, he was respected and loved. I think he was something of a symbol to many. I am sure that the 2000 men that have gone through this office and those that remain will remember a long time the influence of his great personality and talents. His death is a great loss to us all.

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Editor Monthly Bulletin

ARTHUR WOLTERS DORF, 520 N. Michigan Ave., Chicago 11, Ill.

Termites and dry-rot, between them, are bringing their total damage close to the amount of fire loss in the United States—about \$300,000,000 yearly. And while the building owner is largely protected—at a price—by insurance and increasing precautions against the loss by fire, he is most feebly protected against the termite and dry-rot, largely because so many of his wooden structures are built without benefit of architectural design and supervision. It would be a grand thing if we could say that no architect-designed structure has ever suffered damage from termites or dry-rot, but even today many architects seem blind or careless in the face of this growing peril.—Editorial, July '45 Journal of the A.I.A.

Resistance to decay in wood in buildings is indeed a serious matter, as stated above in an editorial reprinted from the July Journal of the American Institute of Architects. Realizing the importance and the need for disseminating knowledge among architects of the most advanced methods of preventing such decay, the Illinois Society Bulletin presents in this issue a study of the subject by an expert, Leo Kraemer, a research engineer, who has devoted years of study to the subject.

The Journal's editorial states termites and dry-rot are responsible for a total damage approximating about \$300,000,000.00 yearly. We believe this amount is grossly exaggerated, though the damage unquestionably is large. No doubt modern conditions in buildings are often conducive to such decay through air conditioning apparatus, unthought of condensation and the like. Then there is the difference in the quality of lumber available today in contradistinction to that obtained twenty, thirty or more years ago. Mr. Kraemer says "Marked differences exist between the highly selected wood formerly economically used in construction and the more common types of wood used today of necessity. All

these changes create a more favorable atmosphere for decay." The Bulletin hopes that the Journal editorial and Mr. Kraemer's study will arouse discussion in the architectural press, leading to a more general knowledge of treatment for the preservation of wood in buildings.

There are other building materials requiring further study conducive to longevity of the material. Among these are the building stones. Every state in the union maintains a department or bureau of geology. These offices tabulate the lime and sandstones, marbles and granites found in their respective states and often, as in Illinois, the department exhibits samples in its headquarters building. This is the case in the geology building at Urbana at the University of Illinois. The department, as no doubt is the case in other states, aims to promote quarrying, thus stimulating home state industry. As far as we know no tests of wearability, or durability when subjected to weather are made. For the best interests of all concerned, such tests, with recommendations for treatment when the material is exposed to the elements, are as important for stone as for wood. We know no reason why the state universities, particularly those that maintain elaborate testing laboratories, as does the University of Illinois, should not make a scientific study along these lines and make such studies available to quarrymen, architects and builders that might become interested in the use of that material.

In the Chicago area there are edifices forty, fifty and more years old, built of Illinois (Joliet-Lemont) limestone, Portage red sandstone from Wisconsin and Marquette raindrop stone that today show a sorry state of disintegration. In the case of wood, Forest Products Laboratories at Madison, Wis., a section of the Department of Agriculture at Washington, is of the greatest assistance. Why not state or federal bureaus for stone, giving a like service?

We throw out this suggestion in the hope that it will bear fruit.

Fun and Facts From Iowa

"Marco Polo returned to Venice from a trip to the Far East, and soon thereafter that city blossomed out in onion domes and other oriental features. Robert Adam, upon his return from Rome, decorated much of London with Pompeian motives. J. Nuxley Vomicus subscribed to "Pencil Points", and instantly the new buildings in his home town of Keokuk became extremely Bauhaus. All of which adds up to the fact that Architecture has usually depended upon forces outside the architect, and has not been, as theorists have hopefully claimed, the effulgence and inspiration welling up from the depths of the designer's soul. Perhaps the very resistance of architects to the kind of "influence" which is alleged to frequently cross a politician's palm, makes them victims of this subtle and insidious type."

So begins "Cribbs and Corn" by J. Woollen Brooks, Des Moines architect who contributes item three of the eight items in the table of contents of the first of the quarterly Iowa Chapter A.I.A. Bulletin, dated Ames, July 2. The booklet contains twenty-five sheets (mimeographed, one side). The first item is Chapter news and the last is Curricula in Architecture and Architectural Engineering at Iowa State College.

The Illinois Bulletin welcomes the Iowa Bulletin to the group of state architects bulletins and wishes it a long, vigorous and influential life, with all the accompanying prosperity it can stand.

Illinois Society Annual Meeting

On the evening of June 26 at the Chicago Bar Association quarters, assembled the Illinois Society of Architects for its 48th annual meeting. To this anniversary came 66 which included perhaps a dozen wives or daughters of the members. Beginning at 6 P.M. with cocktails the company sat down to an excellent dinner at 6:30, in a mood of friendliness and acceptivity. Superior Lake Superior whitefish was featured.

The dinner ended, President Smith took the floor, welcoming all to the meeting. Dispensed with was reading of the minutes of the May meeting. The chair next introduced the special guests of the evening, beginning with Henry M. Hedges, lately Senior Civil Engineer, P-5, attached to the First Construction Battalion of the Seabees, U.S. Navy; George R. Stearns, editor and general manager and Philip P. Page, vice president and business manager, Chicago Journal of Commerce and The Economist.

The chair now called on Mr. Page to address the company on Probable Post War Business Conditions. Mr. Page breathed optimism with care rather than enthusiasm. He said, whether we like it or not, we must now take our place as a world power and act and legislate accordingly. He spoke of four governmental agencies that had much to do with the control of industry in war and promised early liberalization by OPA in the matter of restrictions on material and labor. Certain bills before Congress bearing on revival of business he was skeptical of. On labor unions he felt they were conscious of their power and unready to have any restrictions placed upon their actions.

The President here introduced part one of the business meeting, asking for annual reports of committees. Ralph C. Harris reporting on membership came first. The membership at this time numbers 275. Herman L. Palmer, financial secretary came next. He told about receipts and expenditures in detail. Then came Carl Hauber, treasurer, who showed a balance in bank at the end of the Society year of \$916.05. William Paul Fox reported for the legislative committee, dwelling upon action on the building code by the common council of the city of Chicago and by laws and their abandonment through unconstitutionality in the General Assembly at Springfield. Benjamin Franklin Olson of the materials and methods committee reported, dwelling largely upon modular planning as related to building design. He recommended that it was the most valuable solution for modern building construction. Arthur Woltersdorf reporting for the publicity committee advised revival of public statements appealing directly to the public, with a continuation of public information to the profession direct through the Bulletin.

Newly elected members present were introduced. They were Samuel Lillianthal, Stanley Peterson and Edward M. Sieja. The chair now broke into the business meeting to call upon a portly, friendly, valuable man with a bubbling sense of humor to tell of his experiences in the Southwest Pacific. This was none other than Mr. Hedges who had been introduced early in the evening.

Tired and exhausted from overwork Mr. Hedges turned to the Southwest Pacific, in company of his wife for an extended vacation "far from the madding crowd." They sailed to Bora Bora near Tahiti, found themselves the only white people on the island, learned to swim, to fish in the native manner, to spear fish, to do and eat as the natives did and so enjoy a carefree vacation, until business called Mr. Hedges back to America. A year later the couple sailed again to the same island, getting still better acquainted with coral reefs, under water swimming and photographing under water, fighting with octopi and other dangerous fish, learning the native language and studying the marine gardens through a glass bottom boat before diving in and trying to emulate the natives in the length of time Mr. Hedges could hold his breath under water.

Then some strange vessels appeared beyond the coral reef and entered the atoll, rousing suspicion. This was now after Pearl Harbor. More formidable vessels appeared and finally Hedges was sent for to appear before the Admiral.

It was all very friendly though searching. Secret service men had in the meantime looked up the record of Hedges in the U.S.A. and he was pressed into service, with titles as given earlier in this article. It was all extremely interesting but the story was not complete without the beautiful colored moving pictures taken by Mrs. Hedges which were now thrown on the screen. Strange indeed was the contrast between the earlier pictures of the natives where were shown the simple life of the natives with their fish and the minimum of dress with the later pictures of navy vessels, of armed men in uniform of the various services. The first was peace, the second was war.

With the picture show closed, the president called on William J. Klein to report for the tellers the outcome of the letter ballot election for new officers and directors for the year 1945-46. These are, President, G. Harold Smith; 1st Vice President, William Paul Fox; 2nd Vice President, Arnold J. Kruegel; Treasurer, Carl Hauber; Secretary, Nathan Koenigsberg; Financial Secretary, H. L. Palmer; Board of Directors, for one year, Richard E. Schmidt, Arthur Woltersdorf for two years, Marvin Probst, James H. Ticknor; for three years, Benjamin F. Olson, R. Harold Zook; Board of Arbitration, John R. Fugard, Leon E. Stanhope, John W. Root, Hubert Burnham, Sigurd E. Naess, John A. Armstrong, Benjamin Horn.

The installation of new officers was naturally deferred since the present incumbent of the presidency was reelected for another year.

Gracefully indeed did President Smith thank the speakers of the evening for their entertaining and illuminating contributions, together with a special compliment to Mrs. Hedges for her success in taking the moving pictures on Bora Bora in natural color. The President closed with a statement on the efforts and aims of the Illinois Society, recognition where more good, both for the public and the profession might be accomplished and his hopes and efforts for the future were voiced.

Illinois Society Election Returns

Administration Ticket

79 G. Harold Smith.....	For President.....	50	Ralph C. Harris
76 Wm. Paul Fox.....	For 1st V. P.....	53	Benj. A. Horn
75 A. J. Kruegel.....	For 2nd V. P.....	54	Edw. A. Schiewe
79 Carl Hauber	For Treasurer	50	Carl Hauber
71 N. Koenigsberg	For Secretary.....	56	I. S. Loewenberg
80 H. L. Palmer.....	For Fin. Secretary.....	50	H. L. Palmer
70 Benj. F. Olson.....	For Director	51	Benj. F. Olson
68 R. Harold Zook.....	For Director	65	V. A. Matteson
57 H. S. Bradley.....	Arbitration Board.....	68	J. A. Armstrong
59 J. C. Christensen.....	Arbitration Board.....	71	Hubert Burnham
78 John R. Fugard.....	Arbitration Board.....	56	G. A. Johnson
57 L. H. Berding.....	Arbitration Board.....	57	Jay C. Orrell
60 Benj. A. Horn.....	Arbitration Board.....	72	John W. Root
71 Sigurd E. Naess.....	Arbitration Board.....	51	B. Leo Steif
77 L. E. Stanhope.....	Arbitration Board.....	59	R. Harold Zook

Members Ticket

In Florida: From the records which are not complete, there are 149 architects affiliated with The Institute and 275 architects who list Florida addresses. There are in addition 102 registered Florida architects who are in the armed services. The state board of architecture has very limited funds to carry on investigations. It is up to the architects of the state to solve this problem.

"Mere function, as usually understood, neglects the emotional side of architecture. We do not live on logic alone. The enormous emotional force of the Gothic cathedral does not spring from the perfection of its engineering. We may admire the keen conception, the skill, the scale of the structure, but even the non-believer cannot but be gripped by those qualities which are the result and expression of a religious life and religious fervor hardly understood today."—Ernest Payer

Chicago Chapter A.I.A. Annual Meeting

To the Casino Club for the annual dinner and meeting of the Chicago Chapter A.I.A. on June 12 came sixty-five (61 men and 4 ladies). The dinner was good and the ladies added the dignity to make the meeting impressive. President Shaw opened the business meeting by asking someone to move dispensing the reading of May meeting minutes. Then came reports of various committees.

The membership, during the past year increased by 35, making the corporate membership 232 and a total membership, including other classes, of 286.

The Treasurer's report came next. The Chapter has a balance in bank at the end of its year of \$2,110.86.

Two corporate members, Ernest Grunsfeld and Alfred Shaw were advanced to Fellowship by the National A.I.A. Board. Mrs. James Ward Thorne was made an Honorary Member.

The lady guests were introduced. They were Mrs. John A. Holabird, Mrs. James Ward Thorne, Mrs. Charles Dornbusch and Mrs. Coddington. The men guests were Frank Lloyd Wright of international fame and Harry Morris, architect of Australia.

President Shaw next asked Secretary Schlossman to read the scroll that had been prepared as a memorial to the late John A. Holabird. Before having it read he announced that composition of the statement had been written by Charles Collins of the Chicago Tribune editorial staff and the lettering had been done by architect Charles Dornbusch. The scroll tablet, protected by cellophane was passed among those in attendance. Mr. John W. Root accepted the scroll for himself and colleagues with fitting words.

Election of officers for the year 1945-46 was now in order. One nominee for each office had been selected and these names were circulated through the mail with invitations to the meeting. The chairman asked for other nominations from the floor; there being none the secretary was asked to cast a ballot for the Chapter for those in nomination. The new officers are: Paul Gerhardt, Jr., President; Samuel A. Marx, 1st Vice President; L. Morgan Yost, 2nd Vice President; Norman Schlossman, Secretary; W. Fred Dolke, Treasurer; Alfred Shaw, Director for 4 years. Mr. Gerhardt was installed as presiding officer and carried the meeting from then on.

Regular business having been disposed of the special speaker of the evening, Joshua D'Esposito was introduced. As is well known he is an engineering consultant, brought to Chicago when the Union Station was being erected on Canal Street by the Union Station Company. He has made Chicago his home since then and has served on many and various engineering committees for the city. The burden of his song was the utter planlessness and waste of land; the planlessness of railroads entering Chicago from every direction and finding their terminals widely scattered. He referred to the New York Port Authority, as well as the Golden Gate Authority and hoped that Chicago might receive some such functioning body whose authority would go beyond planning; he wanted that authority to go far beyond what the Chicago Plan Commission's is. D'Esposito would have this body function not merely in an advisory capacity as the Chicago Plan Commission does, but would give it authority to raise or find the funds to carry out what they propose. Legislative bodies such as the General Assembly in Springfield had been approached but they would go no further than show a willingness to appoint a committee to make another report. This was discouraging according to the speaker. Encouragement, however, was received from leading clubs and societies such as the Union League Club. The speaker pointed out the positive danger to waiting passengers at many station platforms but saw no signs in the immediate future for the creation of a Chicago Port Authority as his proposed body might be called.

With the address completed questions were asked by Messrs. Gerhardt, Lobl, Shaw, Grunsfeld and Holsman. The meeting adjourned about 10 P.M.

Wisconsin Chapter Asks of The A.I.A. Board

1. "Is an Architect employed by a General Contractor on a full-time basis eligible to corporate membership in The Institute?"

The Board's answer is "No," unless the employment allows the Architect to retain his full professional freedom. In other words, when that freedom goes, the man ceases to function as an Architect.

If the Contractor be a Speculative Builder and engages an Architect part time or full time on a true professional basis with reasonable compensation and with his name and title on his drawings, then those drawings contribute to the solution of one of the knottiest problems and that Architect is declared eligible for Corporate Membership.

2. "Is an Architect employed by a General Contractor who is in direct competition with the Architectural Profession eligible for corporate membership in The Institute?"

The Board's answer is "No." We reason that such a man cannot be both for and against us; that he has forfeited his professional standing regardless of the size of the operations. His employer is undermining the professional integrity and leadership of his employee and all Architects in private practice.

3. "Is an Architect who bids on any project as a Contractor and if successful in obtaining this work performs the combined services of an Architect and Contractor with a profit considered as his fee eligible for Corporate Membership?"

The Board's answer is "No," since this man violates the A.I.A. Principles of Professional Practice by ceasing to be "absolutely disinterested" financially and otherwise. We are informed that the Supreme Court of Michigan has ruled that when an Architect has an interest prejudicial to his professional interest, then he is no longer a practicing Architect in that State.

4. (a) "Is an Architect who operates as does the National Home Builders Institute as General Brokers, obtaining bids as Architects but selling on a lump-sum basis, which includes a profit on the lot, insurance, loan, etc., eligible for membership? (b) Does he violate the By-laws of The Institute?"

The Board's answer is "No, he is not eligible because he does violate the By-laws to say nothing of the Principles of Practice." If he builds for his own occupancy and sells thereafter he retains his good standing.

5. "If this (practice as stated in question No. 4) is considered unethical, is the practitioner operating in such a manner subject to discipline?"

The Board's answer is "Yes," The By-laws and Principles of Practice are plain and well understood between the Institute and its members. The Architect's professional standing has been built by the best efforts of thousands of men and is only as good as the members demonstrate it to be. We cannot rightly ask the majority to abide by our ethics and excuse a minority for refusing or failing so to do. This would betray our pioneers, the great majority of our present members, our clients and finally our students in whose eyes we must attempt to qualify if our profession is to stand and give leadership.

The Wisconsin Chapter says that

"A few of the Architects, especially the young practitioners, are strongly of the opinion that in order to survive, the Architect will be and is compelled to meet this competition by similar methods. They believe that our By-laws should be revised to cover and meet such contingencies. They also believe that the Architect can then operate with a sense of decency."

The Board's reply is that now is the time of greatest potential opportunity for Architects to reestablish and retain their highest sense of professional practice; that we must help elevate the Builder's concepts by cooperation and example and, finally, that in standing steadfastly for our status even if we have to reject and discipline members, we will influence right-minded men to requalify for our ranks and more truly share in the tremendous responsibilities of leadership ahead.—A.I.A. Bulletin, May 1945.

Designing and Specifying Wood for Decay Resistance

By Leo Kraemer,[†] Engineer in Charge of Research—Edward Hines Lumber Co.

An immense sum of money is spent annually repairing the damage to lumber in buildings caused by dry rot. Cases are known in which it has cost thousands of dollars to renew the decayed lumber in a single building of the monumental or institutional type. By far the greater part of this damage could be prevented were the conditions which favor dry rot better understood, and were more adequate precautions taken against its outbreak.

The destruction of timber may be brought about by the attack of either fungi or insects. Insect damage is caused by the larvae (so-called "worms") of wood-boring beetles or by ant-like insects known as subterranean termites. Beetle damage can be recognized by the presence of small round exit holes made by the beetles when they emerge leaving small piles of wood dust on or beneath the lumber. Termite damage to lumber is often not evident from the exterior. Large numbers of winged reproductive termites swarming may be the first indication of the presence of a termite colony. Termites do not reduce the wood to a powdery mass or push wood particles to the outside through openings.

Dry rot is the name given to the decay of lumber in buildings caused by the attack of various fungi (plants belonging to the same class as toadstools and mushrooms) which feed upon the wood and leave it in a dry, friable, powdery condition. "Dry rot" is rather an unfortunate term. When accurately used it refers to decay produced by those species of fungi which transport the water needed for growth from a distance through their water conducting strands. "Wet rot" is also an expression about which confusion exists; by some people it is taken to mean decay by a fungus which requires a higher moisture content in the wood for growth than the dry rot fungus, and by others to mean the slow disintegration of exposed wood surfaces as window sills under the action of the weather. It is a term that should not be used. The terms "dry rot" and "wet rot" are simply indications of the conditions under which the decay apparently progresses. All fungi require moisture for prolonged life and activity. Condensation from humid air usually furnishes the moisture in the quantity needed for extended decay.

Recognition of Dry Rot

Decay in buildings is caused by several different fungi, but in the great majority of cases it is due either to a fungus known to science as *Merulius lacrymans*, i.e., the true dry rot fungus, or to *Coniophora cerebella*, which is only capable of attacking wood that is definitely wet.

It is very important to be able to recognize true dry rot in order that prompt remedial measures may be applied. Care should be taken not to mistake dry rot for the growth of mould which frequently appears as a greenish or yellowish powder, or as tiny tufts of green or black on damp wood, especially on the sapwood. These moulds do not cause decay, though they discolor the surface, and may be removed by brushing or planing. The fact that they are present, however, does indicate that the damp conditions, favorable for an outbreak of dry rot, exist.

The appearance of wood decayed by dry rot depends upon the stage of the attack and upon the condition under which the fungus is growing. When *Merulius* is growing actively in a damp situation it appears upon the wood as white fluffy, cotton-wool-like masses, and spreads out like a silky white sheet. In rather dryer places the fungus forms over the surface of the wood a skin or felt, which soon becomes pearly-grey. Branching strings or strands, which vary in diameter from the thickness of a thread to that of a lead pencil, are generally formed. These strands contain tubes which conduct water, and they are capable of penetrating the mortar in brick walls and can pass over inert substances such as stone or iron.

Wood thoroughly rotted by *Merulius* has a characteristic appearance: it is light, friable and dull brown in color. It

splits up into large or small cubical or brick-shaped pieces formed by deep transverse and longitudinal cracks, due shrinkage; rather reminding one of charred wood, apart from its color. Rotten wood no longer possesses the fresh or resinous smell of sound wood.

The decay may be entirely concealed from view, a slight waviness of the surface often being the only indication that a piece of lumber is completely rotted within. The soundness of the wood may be tested by probing with a sharp-pointed instrument or small auger, or by giving it a rap with a hammer; decayed wood fails to "ring" properly and offers no resistance to the withdrawal of a knife.

Requirements of Fungi For Life and Activity

Fungi require food, moisture, warmth and air for their development. Most species of wood contain ample food in the cells or cell walls. Unseasoned sapwood contains a rich store of food in readily soluble form. The heartwood of those species of wood which are noted for their durability contains, however, substances noxious to fungi. The purposes of preservative treatments is to render the wood poisonous to fungi.

Moisture is essential for all fungus activity. This is the chief variable controlling the activity of fungus in buildings. Inadequate moisture renders fungi dormant but will not immediately cause death.

The most favorable temperature range for fungus development varies with the species but is usually 75 to 95 degrees F. Fungi become dormant at temperatures below 40 degrees F. and are killed by moist heat at temperatures somewhat over 100 degrees F. The temperature to kill varies with the species and involves the time element. *Merulius lacrymans* (dry rot) is particularly sensitive to heat, a moist temperature of 108 degrees F. for three hours or 114 degrees for one hour being sufficient to kill it. Moist heat is more effective than dry heat. Kiln drying procedures sterilize wood but do not provide permanent immunity.

All fungi except yeasts and bacteria require some air for growth. Wood from which air has been entirely excluded will not decay.

Adequate moisture is a fundamental requirement and fungus growth is possible only within a limited range of moisture content of the wood. It is more or less generally accepted that the most favorable moisture condition for decay occurs when the cell walls of the wood are saturated with water and the cells themselves are partly filled. The lumber may then contain water equal to 30 to 150 percent of its oven-dry weight. Fungi may grow where the moisture content is 25 to 30 percent but germination of spores and development of new plants under such conditions would be difficult.

Fungus will not grow in wood which contains excessive amounts of water (over 150-200 per cent of its oven-dry weight). This fact has been utilized in many instances to prevent decay. The staves of large wooden water tanks or pipes are often designed very thin so that they will be constantly water logged. Wood of great antiquity, which has been constantly under water, has been revealed in a perfect state of preservation. Piles under an old bridge in London were found sound after being in water 600 years. In deep test borings for engineering structures, samples of buried logs have been brought up in good state of preservation after burial in wet earth since the glacial period.

Wood which is too dry also will not support fungus life. The lower limit of moisture content of wood below which all fungus activity ceases has been found to be about 20 per cent of the oven-dry weight of the wood. The roof beams of the Basilica at Rome which are in a particularly dry atmosphere are perfectly sound today after being in place a thousand years. Fungi will grow in a beam near a cold water pipe where moisture is precipitated from the air by the low temperature adjacent to the pipe. It is sometimes erroneously supposed that certain species of fungi thrive normally under conditions

considered very dry. Investigations always disclose a source of considerable moisture. The center of a large beam seasons very slowly initially and dries out nearly as slowly after becoming saturated by prolonged moist conditions. The true "dry rot" fungi can conduct the water needed for growth a considerable distance through their strands and some water may be formed by decomposition of the wood itself. It is, of course, possible that decayed wood found in dry locations rotted in the past under more favorable moisture conditions.

Atmospheric humidity affects the progress of decay by supplying or failing to supply the moisture required by fungus for growth. Some moisture may be absorbed by the wood from the air. Most of the moisture required by fungus, however, accumulates as condensation. Wood in a location subject to very high humidity is particularly susceptible to attack by fungus. Condensation from a pipe carrying cold water has rotted sections of lumber in the vicinity. Lumber subject to attack near ventilators, roof drains and skylights, around windows, or wherever the air is comparatively cool and the relative humidity consequently higher.

Does Paint Provide Protection?

Painting of wood is beneficial in proportion to the waterproofing power of the paint and the continued dryness of the wood. A heavy coat of paint applied to green or wet lumber will prevent the lumber drying out and will accelerate decay. Studies by the U. S. Forest Products Laboratory indicate that ordinary paint and varnish merely retard and do not stop the interchange of moisture between air and wood. Wood that is well painted on all surfaces exposed and unpainted does absorb moisture more slowly than unpainted wood but the absorption is not prevented entirely. It is seldom that wood is painted on all surfaces and moisture absorption is not retarded in the least through the unpainted surfaces. Moisture can also find access at joints, where the paint cracks because of repeated dimension changes in the wood. Moisture that has found access and has become entrapped in the interior of painted wood will evaporate more slowly than from unpainted wood. When this happens the paint may favor rather than retard decay. You are familiar with the phenomenon in window sash when moisture works its way into joints and between the glass and wood.

Methods of Controlling Decay

A simple way to provide high decay resistance (although not necessarily the most practical or the most economical) is to use one of the naturally durable woods which contain substances noxious to fungi. The heartwood of certain species with high decay resistance can usually be counted on for long service even under conditions that favor decay. When questions of available supply, cost, appearance, working properties, and mechanical properties are taken into account, these species do not always have the undisputed superiority sometimes attributed to them.

Preventing decay in wood by injecting toxic chemicals is easy. Preservatives and methods of treatment have long been available that can be relied upon to give to wood, even sapwood of low natural decay resistance, very long life under the most severe decay exposure. The problem of treating for decay resistance may not be so easy of solution, however, when other special requirements must be met. For example, no more effective preservative than coal tar creosote injected under pressure is known, but it is obviously unsuitable for use when the color and odor are objectionable. Creosoted wood cannot be satisfactorily painted or varnished nor can it be used where food stuffs may absorb its pungent odors.

There are several good odorless and almost colorless preservatives that, in water solutions, can be injected into lumber by pressure methods. The lumber must obviously be completely penetrated and the preservative distributed throughout uniformly. Spots of untreated or poorly treated wood in the interior of a board will almost certainly be exposed when the board is milled to its finished size and shape. Under conditions favorable to fungus growth these vulnerable spots will be "welcome" signs to fungi. Complete protection would suggest fabricating and assembling the lumber before treat-

ment but this involves a number of difficulties. Injecting water into wood will make it swell, probably causing either actual rupture of joints or at least compression severe enough to result in open or loose joints on subsequent drying. Treatment with water solutions of cut and fitted parts before assembly would not cause loose or open joints but grain raising, warping, checking, and drying problems would still be encountered.

Special Preservatives

During the years prior to 1940 a number of proprietary preservatives were developed especially for the treatment of window sash and similar products. Generally they consist of an organic toxic chemical carried in a nonaqueous volatile solvent. They leave the wood clean, practically odorless and easily paintable when free from waterproofing agents. They are practically colorless and dry quickly by evaporation of the solvent.

In some formulas drying oils, such as linseed oil, have been used for the purpose of "priming" the sash and making it water resistant. This practice is not to be recommended, for it fails to give the wood any material resistance to moisture or to provide an adequately primed surface, and it may reduce the effectiveness of the toxic chemical.

To choose intelligently among the various preservatives it is important to know their composition. The term "wood preservative" is used very loosely and there are products on the market which have been recommended that contain no toxic ingredients or an insufficient quantity. A secret formula leaves the purchaser without information as to the presence of a toxic ingredient, its nature, or the amount present in the solution, all of which are very important in considering the probable effectiveness of the material. Enough preservatives of known composition are available to make it unnecessary for anyone to purchase secret preservatives.

With a good preservative of the character described, treatment can be made after cutting and fitting parts, either before or after assembly. There is no swelling of the wood and no drying out of moisture after treatment, with its accompanying troubles. Penetration need not be complete but it must be deep enough to insure against exposure of untreated wood in critical places should subsequent cutting or fitting be required. If the wood is sound to begin with, maintaining a substantial depth of treatment at all surfaces and in all joints will prevent decay of untreated wood underneath. It is when the treated area is broken through by cutting or checking or by the opening of poorly treated joints that difficulty overtakes us.

Greater demands are continually being placed on wood by changes in architectural design, by the trend especially in the North toward the maintenance of higher temperatures, finished basements, vapor seals, and by the advent of air conditioning and humidification. *Marked differences exist between the highly selected wood formerly economically used in construction and the more common types of wood used today of necessity. All these changes create a more favorable atmosphere for decay.*

The future of wood in certain applications depends on the use of effective and permanent "clean" treatments which, while protecting the wood, will not alter its characteristic feel or appearance, nor interfere with subsequent fabrication or application of surface coatings.

The value of chlorinated phenolic compounds is comparatively a recent discovery. Only since 1936 has the true usefulness of pentachlorophenol been revealed as a wood preservative. Where conditions are favorable to rapid decay injection under pressure of creosote or a reputable water borne preservative should be considered. When the exposure is moderate and where service conditions require a clean treat these special preservative solutions containing not less than 5 per cent of a stable and suitable toxicant give every indication of outlasting the mechanical and useful life of a building.

An editorial in the July 1945 Journal of the American Institute of Architects, with a statement more startling than factual of yearly damage by dry-rot and termites, indicates

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Hospital Specialists Taboo with Indiana Architects

As advocated by the American Hospital Association and endorsed by a Committee of The Institute, prompted the Indiana Society of Architects and the Indiana Chapter, A.I.A., to issue a two-page broadcast denouncing the attitude of The Institute in favoring the specialist over the general practitioner. If this program succeeds, say the Hoosiers, it won't be long before other well-organized groups will clamor for specialists in the field of theaters, churches, schools, newspaper plants, etc., and the profession will be dominated by architectural specialists working out of large centers and divorced from any permanent, local community interest.

The Indiana Architects feel that this problem is of such far-reaching significance that it should be discussed freely and openly by the membership before a definite policy is determined by the Board. Tennesseans having any convictions on the subject, should communicate with their local vice presidents, or send in their comments for transmittal to the Board.—*The Tennessee Architect for June '45*

The Chicago Technical Societies Council

In September, 1943, representatives of eight technical and professional groups met to discuss the formation of a council to further their common interests. The organizations represented were the Chicago Chapters and Branches of the American Association of Scientific Workers, the American Chemical Society, the American Institute of Architects, the American Institute of Chemical Engineers, the American Society of Tool Engineers, the American Welding Society and the Institute of Radio Engineers. They were joined in October by seventeen other groups and together founded the C. T. S. C. which now has forty-two affiliated societies.

The purpose of the organization is to provide a medium for cooperative action on matters of mutual interest, especially those beyond the scope of the individual societies, to provide means for more effective public service by its affiliates, and to cultivate greater public appreciation of the contributions made by the engineering, technical and scientific professions to human welfare. Its organization follows rather closely that of similar groups such as those in Cleveland, Cincinnati and Detroit.

During its less than two years of existence it has undertaken the monthly publication of a calendar of scheduled meetings of the member societies which has a mailing list of some sixteen thousand. It hopes thus to avoid conflicting dates and to give information to all on meetings of interest. Other matters of common interest are included when possible in this leaflet.

A list of all technical library facilities in the Chicago area has been compiled and, for the use of program chairmen, a directory of meeting and dining facilities with details of capacity, cost and so on. A list of moving picture films of a technical and scientific nature is also being assembled.

The Council hopes some day to provide headquarters similar to the Rackham Memorial in Detroit for the meetings and activities of all technical groups.

The most ambitious undertaking so far is sponsorship of a series of war production conferences. The third of these, held at the Stevens Hotel on March 29, 1945, was attended by some 2,500 people although limited by the O. D. T. to local attendance. The subject of a two-hour panel, contributed by the Chicago Chapter A. I. A. was "Industrial Construction". Speakers were Messrs. John S. Cromelin, George Carr, R. N. Friedman, Leif E. Olsen, Joseph Z. Burgee, architects, and Mr. H. Evvert Kincaid, director of the Chicago Plan Commission.

The Council has a definite value in fostering cooperation between engineering and architectural groups as well as other scientific and technological organizations. It is to be hoped that the possibilities of this adventure in cooperation will be fully utilized.—*W. Lindsay Suter, Council Delegate, Chicago Chapter, A.I.A.*

Institute of Design, Chicago: Three scholarships, each worth \$500.00 were awarded to, first, Harold Horowitz, Sullivan High School; second, Mildred Baron, Lindblom High School; third, Jean Hodel, Kelly high school. The Board of Directors of the Institute will continue its policy of supplying worthy students with scholarships.

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the responsibility of the architect through design, supervision and example to produce buildings immune to such attacks. Prevention of decay and insect attack hinges upon the practical recognition of a very few essential facts which, translated into design and specifications, will largely insure immunity. Application of these facts requires no revolutionary changes in present practice. Often merely minor corrections here and there are necessary.

I do not hesitate to say that if full advantage is taken of the technical information at present available, decay and insect damage could practically be eliminated as important factors in the life of buildings and other wood structures.

†Mr. Kraemer was Research Engineer for the Chicago Lumber Institute to the time of this country's advent in World War II. In this as in previous work with the National Lumber Manufacturers Association and the Southern Pine Association, Mr. Kraemer devoted his time to adapting scientific information developed by the U.S. Forest Products Laboratory and other Laboratories to the production and utilization of lumber.

As soon as steel priorities can be obtained, the Illinois Institute of Technology, Chicago, will begin work on a \$10,000,000 campus and building program. A start has been made on the program with the erection of the \$200,000 metallurgical research building and of about one-fourth of the \$700,000 engineering research building. Plans call for 16 other structures west of State St.; for building east of State St., a \$1,200,000 system of inter-connecting dormitories. The buildings have been designed by Ludwig Mies Van der Rohe, professor and director of the architectural curriculum. Holabird & Root are associate architects.

On Bali: Fay-Cooper Cole in "The Peoples of Malaysia" (D. Van Nostrand Co., Inc.) tells of the plan of the temple on this Dutch East Indian island. Size and details vary but one plan pattern is followed. There are two or three courtyards enclosed by a low wall with an outer doorway. In the outer court are shelters for preparing food, worshipers rest and where the orchestra assembles. Thence through a massive gateway to the inner sanctuary. Two figures guard the entrance against evil spirits. In the inner court are altars, shrines in the manner of pagodas, stone seats, shrines to the Ancestor Founder, Cosmic Mountain, Sun God.

Jacques Andre Foulhoux, New York Architect, prominently known in Chicago through his association with Howell and Hood in the planning and execution of Tribune Tower and WGN Studios, was accidentally killed on Wednesday, June 20th, while on an inspection tour of Clinton Hill housing project in Brooklyn, N. Y., of which his firm, Harrison Foulhoux & Abramovitz, are the architects.

In Chicago, he was also associated with Raymond Hood as Architects of Bethany Union Church at 103 and South Wood Streets, and the American Radiator and General Electric Company exhibits at the Century of Progress Exposition of 1933. In New York, he was likewise associated with Raymond Hood in the execution of the American Radiator black and gold office building, the McGraw-Hill, and the New York Daily News Buildings, and functioned as one of the designers of Rockefeller Center, and the Trylon and Perisphere of the New York World's Fair.

Mr. Foulhoux was born in Paris, France on September 27, 1879, and in 1913 became a naturalized U. S. citizen, after coming to the United States in 1904 and settling in Portland, Oregon, as a member of the firm of Whitehouse & Foulhoux. Remaining there up to the advent of World War I, he joined the U. S. Army and was promoted to Major in the 129th Field Artillery, of which President Truman was also an officer. At the time of his death, he was President of the New York Building Congress, Treasurer of the Beaux Arts Institute of Design, and was a Fellow of The American Institute of Architects. Mr. Foulhoux held many degrees, from the Sorbonne and the École Centrale des Arts et Manufactures in Paris and numerous public and institutional offices.—*Leo J. Weissenborn*